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California Department of Water Resources  
Division of Integrated Regional Water Management  
Financial Assistance Branch  
Post Office Box 942836  
Sacramento, CA 94236-0001

Re Proposed Flood Water Retention basin at Memorial Park  
San Anselmo, CA

I am writing to advise you that a number of concerned citizens oppose the project referenced above and have, in fact, created a blog entitled Stand Up for Memorial Park, (<http://standupformemorialpark.wordpress.com/>).

There are hundreds of residents in our community who believe this project will not provide significant flood protection, will ruin Memorial Park temporarily, if not permanently, and is an irresponsible expenditure of public resources.

First, this project would only divert a small creek into Memorial Park, recreated as a retention basin, ostensibly to prevent San Anselmo Avenue from flooding as it did on December 31, 2005 with 5 feet of water running down the commercial district of our town. The creek to be diverted contributed no more than 3 -8 % of the water that reached San Anselmo Ave in that storm. The percentage varies depending on whether one calculates the amount of flow from the creek compared with the total flow resulting from the storm as opposed to just the flow "over flood stage", which is roughly 4 feet. Even assuming the higher percentage, it is obvious that this project, in and of itself, would not materially reduce the devastation that resulted from 5 feet of water rushing down the street.

Secondly, the grant application contains misrepresentations and assumptions that are simply unjustifiable. I have enclosed a portion of the Application that purports to depict the properties which are to be benefitted and increase in value as a result of this project. I have circled my property for reference. Suffice it to say that I and all of the people I have spoken with who own the "affected properties", see no benefit from this project. We all live next to the park for various reasons and believe that the park in its present condition has increased the values of our properties already. Consultation with real estate experts has confirmed our belief that our properties will decrease dramatically while the park is under construction. After construction is completed, the values may return to their present levels. No one in the real estate profession thinks the re-construction of the park would increase our values above their current level.

Thirdly, the Application would lead your office to conclude that the storm of December 31, 2005 (a "100 year storm") inundated 1178 properties. This figure is exaggerated perhaps by as much as 50 %.

Fourthly, The Economic Analysis provided to your office in the Application is incomplete and misleading.. Below is a summary of inadequacies and incorrect assumptions presented to you in the effort to lead your office to a wasteful and irresponsible expenditure.

**Notes from a range of reports on the Economic Analysis of Flood Control Measures in the Ross Valley**

A major CIP Study report was issued to the public on May of 2011. The detailed Economic Analysis was not readily available and not posted on the Marin DPW website. It was requested in early 2012 by a member of the public:

"Can we have a full copy of the data and calculations related to the Economic Analysis of Costs and Benefits? Please confirm if it assumes that FEMA will revise the flood map and if no property insurance is assumed."

At that time, a footnote at the bottom of one page of the main body of the CIP Study report made available in May of 2011 read:

*"13 Survey data on very few first finished floor elevations of buildings in the Ross Valley are available; therefore, for the large majority of buildings first floor elevations had to be estimated. For the purpose of this engineering economic analysis, the first finished floor elevations of buildings upstream of Bon Air Road were uniformly assumed to be 1.0 ft above the ground elevation, and the first finished floor elevations of buildings downstream of Bon Air Road were assumed to be at the 100-year flood water surface elevation simulated under existing conditions. The reasonableness of this assumption was evaluated by examining the limited survey data on first finished floor elevations of buildings in the Ross Valley and survey data on first finished floor elevations of buildings in Mill Valley performed by the County in 2009. This examination verified that the assumptions are reasonable. However, to improve the accuracy of this flood damage analysis, a survey of first finished floor elevations of buildings in the Ross Valley is recommended."*

The Economic Analysis was posted in early April of that year, almost a year after the report was issued. No answer was given to the question in regard to financial assumptions about insurance or FEMA maps.

In the appendix posted: Technical Memorandum No 5: Floodplain Mapping and Engineering Economic Analysis (dated January 20, 2011 and posted April 2012) the base assumption on damage and loss was as follows:

Page 3 in part:

*"Estimated flood damage was evaluated on a parcel-by-parcel basis using assumed first finished floor elevations of buildings and the floodplain mapping results. By overlaying these assumed first finished floor elevations on the model-derived floodplain maps, depth of inundation was estimated for all buildings. Depths of inundation for seven selected flood recurrences/probabilities (summarized in Table 1) were estimated under Baseline and Project conditions."*

For some reason the relevant footnote text was not the same as the cover document even though that section of the report was written well before the report was issued. The text reads (underlines are as written):

*"2 Since survey data on very few first finished floor elevations of buildings*

in the Ross Valley are available, assumptions were necessary. For the purpose of this engineering economic analysis, the first finished floor elevations of buildings upstream of Bon Air Road were uniformly assumed to be 1.0 ft above the ground elevation, and the first finished floor elevations of buildings downstream of Bon Air Road were assumed to be at the 100-year flood water surface elevation simulated under existing conditions. The estimation of flood damage is sensitive to this assumption. The reasonableness of this assumption was evaluated by examining the limited survey data on first finished floor elevations of buildings in the Ross Valley and survey data on first finished floor elevations of buildings in Mill Valley performed by the County in 2009. This examination verified that the assumptions are reasonable. However, to improve the accuracy of this flood damage analysis, a survey of first finished floor elevations of buildings in the Ross Valley is recommended."

The following is from a recent public comment in January of 2013:

"3) The CIP flood report appears to suggest that there is a cost benefit to the project. The small print however states that this analysis is dependent on an assumption that all houses in the flood plain have a first floor that is one foot above the ground level. It states that this assumption should be checked and confirmed. I believe that the cost benefit study is both flawed and incomplete. Aside from this issue, unless almost all measures are completed, FEMA will not change their maps, people will still have to carry insurance and flood(s) will still flow through our streets and yards about every twenty years."

The current application for Memorial Park, the report includes a section on Costs and Benefits Analysis.

There is the following footnote in Appendix 1 to Attachment 8:

"1 Since survey data are available for few first finished floor elevations of buildings in the Ross Valley, assumptions were necessary. For the purpose of this engineering economic analysis, the first finished floor elevations of buildings upstream of Bon Air Road were uniformly assumed to be 1.0 ft above the ground elevation, and the first finished floor elevations of buildings downstream of Bon Air Road were assumed to be at the 100-year flood water surface elevation simulated under existing conditions. The estimation of flood damage is sensitive to this assumption. The reasonableness of this assumption was evaluated by examining the limited survey data on first finished floor elevations of buildings in the Ross Valley and survey data on first finished floor elevations of buildings in Mill Valley performed by the County in 2009. This examination verified that the assumptions are reasonable."

A critical last sentence was removed from the first report.

Considering the very significant cost to the local tax payers and the limited state funds, it appears as if the economic analysis should be re-confirmed with a much greater degree of accuracy as it appears as if the property damage estimate could be off by a very significant factor. The initial report's recommendation by the engineers should be followed:

*"However, to improve the accuracy of this flood damage analysis, a survey of first finished floor elevations of buildings in the Ross Valley is recommended."*

Why was this sentence deleted in the most recent report? The evolution of the footnote is interesting, but a single critical sentence remains and infers the problem in a different way:

*"The estimation of flood damage is sensitive to this assumption."*

This sentence is a small font footnote of very large appendix of the first CIP Report and then again, within a large appendix of the Memorial Park grant application. It may be one of the most important aspects of the decision to spend tens of millions of dollars.

From observations of walking through our town, it is highly unlikely that the "assumptions are reasonable". Most homes are well over a foot above grade. A recent walk of two streets suggests that significantly less than half of the houses are anywhere near just a foot above the surrounding grade levels. Many homes in the area are 80-100 years old and with significant floods about every twenty years, most of the parcels in the floodplain would have been inundated up to four times during that period. It appears that due to this relatively frequent cycle of flooding many houses have a first floor level that is raised to reflect the experience of flooding. This assumption is consistent with the actions after the most recent big flood in 2005: many homes were raised and improved. Even our own Town Hall and Fire station were rebuilt with significant cost to have flood-proof barriers. The current grant application's analysis would likely assume significant damage in almost every one of the homes with higher floors as well as our own town hall and fire station.

Finally, the project was nearly feasible in estimates two years ago. It is not clear how construction costs for this project can increase by more than 150% and still have an economic benefit. It's also not clear if anyone's insurance will be eliminated, as the entire project is challenged by cost increases such that a comprehensive flood solution will not be implemented. This would suggest that the FEMA maps will not change and people will be obligated to buy flood insurance. I.e. significant damage will occur and most losses will be covered by insurance. This could also impact the economic models.

Thank you for your time and consideration. I hope you agree that the costs of this project will far exceed any negligible benefit.

Sincerely

DANIEL G. MAGUIRE

